



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,499	11/19/2001	Tsuyoshi Asano	990891A	8570
23850	7590	10/28/2004		
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006				
			EXAMINER HEITBRINK, JILL LYNNE	
			ART UNIT 1732	PAPER NUMBER

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

## Application No.

09/988,499

## Applicant(s)

ASANO, TSUYOSHI

## Examiner

Jill L. Heitbrink

## Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,4,11,12,14 and 29 is/are allowed.
- 6) ☒ Claim(s) 2,5-10,13 and 15-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/30/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 21, 2004, with a postcard receipt of July 21, 2004 has been entered.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2, 5-10, 13 and 15-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 2 recites the limitation "the mouth" in line 6. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 2 recites the limitation "the exhaust gas passage" in line 12. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 5 recites the limitation "the mouth" in line 6. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 5 recites the limitation "the exhaust gas passage" in line 12. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 6 recites the limitation "the mouth" in line 6. There is insufficient antecedent basis for this limitation in the claim.
9. Claim 6 recites the limitation "the exhaust gas passage" in line 12. There is insufficient antecedent basis for this limitation in the claim.
10. Claims 8 and 9 "compression" should be changed to -- decompression --.
11. Claim 13, line 10 "t" should be deleted.
12. Claim 13 recites the limitation "the mouth" in line 4. There is insufficient antecedent basis for this limitation in the claim.
13. Claim 15 recites the limitation "the mouth" in line 4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 2, 5-10, 13 and 15-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kopernicky Pat. No. 4,632,564 taken together with Japanese reference 4-282215.

16. Kopernicky discloses an injection molding apparatus (col. 1, line 15), a resin pellet feeding passage for feeding resin pellets (col. 2, lines 47-48) into the injection apparatus, a pellet feeding regulator (col. 4, lines 7-10) and an exhaust gas passage for exhausting moisture and exhaust gas from the pellet feeding passage side to the outside of the injection molding apparatus (col. 2, lines 50-65). The exhaust gas passage would be connected to a decompressor or suction fan (col. 3, lines 64-65). The Japanese reference teaches an air feeder (11, see abstract) for feeding at least air to the injection molding apparatus at a location spaced apart from the resin pellet feeding passage (the gas is feed into the runner of the injection molding apparatus). It would have been obvious to a person of ordinary skill in the art to provide an air feeder into the runner passage of Kopernicky in view of the teaching of the Japanese reference so as to prevent a molded article from adhering to a mold surface and the resin from oxidizing. A detector for detecting an accumulation amount of the resin pellets situated inside a cylinder of the injection molding apparatus would have been obvious in Kopernicky which controls the speed of the motors 34, 118 so as to provide the desired amount of feed. The detecting of the amount would have been required in Kopernicky so as to not over fill the passage.

17. The amount of decompression of the decompressor would clearly depend upon the distance between the decompressor and the injection molding barrel since the decompressor would have been operated such as to remove the exhaust gases and moisture.

Art Unit: 1732

18. Claims 5, 10, 13 and 15-21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kopernicky Pat. No. 4,632,564 taken together with Japanese reference 4-282215 as applied to claims 2 and 5-10 above, and further in view of Japanese reference 5-64826.

19. Japanese reference 5-64826 teaches a detector 5 situated above an upper end of a flight of a screw inside the cylinder (1). The position of the detector would depend upon the desired height or amount of material above the screw desired for proper feeding and the position being about 10 mm from an upper end of a flight of a screw inside the cylinder would provide 10 mm of material above the screw flight. It would have been obvious to a person of ordinary skill in the art to provide the required detector of Kopernicky at about 10 mm above the screw flight so as to maintain the desired amount of accumulation above the screw feed.

### ***Allowable Subject Matter***


20. Claims 1, 3, 4 and 29 are allowed. The prior art does not teach the resin pellet feeding passage spaced from the air mouth feed, and the air mouth feed being at an end opposite the die end of the injection molding machine.

21. Claims 11, 12 and 14 are allowed. The prior art does not teach a device for automatically feeding pellets with a vacuum interception valve to intercept a passage between a pellet storage tank and other pellet storage.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill L. Heitbrink whose telephone number is (571) 272-1199. The examiner can normally be reached on Monday-Friday 9 am -2 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jill L. Heitbrink  
Primary Examiner  
Art Unit 1732

jlh